An Essay
on
Mobilities.

Respectfully Submitted to the
Faculty
of the
Homœopathic Medical College
of
Pennsylvania.

On the first day of February
One thousand eight hundred & fifty four.

By
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of
New Hampshire.

Gentlemen:

In presenting these few desultory remarks to you, for your consideration, the only apology which I have to make, is wholly disclaiming any thing as original; but merely selecting what ideas I could gather from my limited supply of books, and arranging them in a plain, and condensed form, as my own judgment best dictated. Among the great variety of diseases which the human body is heir to, softening, or a diminution of the natural firmness and consis-

tance of an organ may not be considered among those of the least importance. This lesion may take place in some organs to such an extent that the substance assumes almost a liquid form, and can be removed from the adjoining tissues, simply by the application of a stream of water.

There is probably not a single organ in the whole animal economy, that may not at some period, take on this form of disease; yet that it does not occur in all parts with the same frequency, is equally true.

Its most prominent place of existence would appear to be the cerebro-spinal axis; yet it is not unfrequently found in the mucous membranes, the liver, and the osseous tissues.

Of the tissues which it is most rarely met with, are the serous, the fibrous tissues, the tendons, ligaments, cartilage &c.

Softening is one of the marked results of inflammation, yet that it may occur from other causes, there can be no doubt, as is seen from the action of the gastric juice in the

stomach, which produces softening after death; it not only operates upon the mucous tissues of the stomach, but it actually destroys all its different coats; but this form of softening could hardly be considered as a disease, as it never occurs excepting after death.

Dr. Watson in his highly valuable lectures, speaks of softening of the brain as the result of deficient nutrition, owing to a diseased condition of the cerebral arteries; the supply of nutrition being cut off, and the parts gradually

change from their original consistancy to a soft and pulpy mass; but that disease could exist in the cerebral organs and go on to such an extent as to produce actual softening of the parts, without there being any inflammation, is hardly conceivable. Undoubtedly, in a vast majority, if not in all cases of softening, could the true pathological condition be ascertained, would be seen to be the result of inflammation. This may be of the acute, or chronic form, most commonly thought of the former.

This lesion presents a variety of appearances, according to the different organs in which it is located.

The tissue which seems liable to be first affected by this form of disease is the areolar, the great connecting medium of the other tissues of the body. This tissue is often affected to such an extent, that the surrounding tissues which it binds together may be readily seperated without being apparently changed in structure, or consistance. In the liver, the granulations may be seen to retain their

natural consistance, while the
connecting tissue appears to be
nearly, or entirely destroyed.
The same may be noticed also
in the muscular fibres of
the heart, a diminution in
consistancy of its areolar tex-
ture rendering the cohesion
of its parts much less marked,
than in the natural condition
of the organ.
This lesion is frequently found
to exist in the brain, as the
result of previous disease. It
may be caused by encepha-
litis, by serous effusions, or by
a blow upon the head. It
has also been known to exist

in connection with a variety of other diseases; such as ascites, diabetes, protracted fevers &c. Excessive study, and mental depression not unfrequently result in softening of the brain. The time in which this lesion most usually occurs is during the decline of life; though no age is exempt from it. It occasionally happens during childhood as the result of hydrocephalus; but now rarely occurs during the middle period of life. Softening may exist in any portion of the cerebral substance; but its most frequent

place of location is the convolutions, and the striated bodies. It may extend over considerable surface at a time, or it may occur in quite small patches.
Both substances of the brain are affected with this lesion simultaneously, though the medulary substance is usually softened to a greater degree than the cortical.
As to the appearance and consistance of the part affected, it varies much according to the time the disease has progressed, and the

intensity of the exciting cause. During the early stages the changes are but slight, and can hardly be recognized, while at a more advanced period the continuity of the parts are decidedly changed and the tissues may be readily seperated with the finger. In this situation the substance of the cerebral organ, unable longer to retain its normal condition becomes broken down and assumes the form of a soft pulpy mass, oftentimes of the consistance of cream, or pus; and thus rendering a breach

of continuity of the parts not unfrequently of considerable extent. The color of the softened mass varies according to the circumstances attending it, and the tissues in which it is situated. It may assume a redish appearance the result of congestion, or the direct extravasation of blood; or it may be yellow, fawn and grey colored, from the presence of grey exudation corpuscles, or white. The portion broken down may retain its natural color, though usually it becomes somewhat darker. It never however has the appearance of pus

either in color or its disagreable odor, so that it ought never to be considered a process of suppuration. The duration of softening varies from a few days, to as many months, and sometimes even to years; some authors affirming that cicatrization takes place and that the patient finally recovers. As to the symptoms of softening of the brain, they are very obscure. The only symptoms which pathologists have given, are the rigid contractions of the muscles of the extremities, and these are so often wanting that they are considered of

minor importance in point of diagnosis.

The heart, the great organ of the circulatory system is also liable to softening; it may exist in connection with diseases of other organs, or as the result of acute, or chronic inflammation of its own tissue. It may be quite general, extending over much of the surface, or it may be more limited and confined to small patches. The substance of the heart during the existance of this lesion is soft and yielding, so much so that it can readily be torn by the fingers.

The color of the cardiac tissue is variable, but most usually it is of a deep red.

Bertin gives an account of a case where softening of the right, with induration of the left ventricle existed at the same time.

Authors give no symptoms whereby softening can be diagnosed from other cardiac diseases.

Of the alimentary canal softening may exist in any part from the oesophagus to the rectum; but it is much more common in some parts than in others. The inflammatory softening is most

commonly found in the stomache, the lower portion of the ileum, the coecum, the ascending and descending colon, and the rectum.

Softening is occasionally confined to the mucous coton, or follicles, though generally it occurs in all these structures at the same time, converting them into a soft irregular substance. This form of softening is usually gradual in its progress, passing through different stages befor it is fully developed. At first the membrane is much more brittle than usual, and

breaks easily on being seized with the forceps, not having strength sufficient to be detached in small strips as in the sound state; at a more advanced stage the cohesive powers are so much weakened, that the parts may be reduced to a pulpy by the application of the fingers; and lastly the softening has arrived to such an extent, that the mucous membrane may be readily removed by allowing a stream of water to fall upon it.
It is not uncommon at this stage of softening to find

portions of the mucous membrane removed, by the passage of the fluid contents of the alimentary canal.

With this tissue, as with others, it varies much in color from softening; it may be of a pale bluish, lighter than natural, or of a red or brownish color, or it may retain nearly its natural appearance.

This variety of softening of the mucous membrane is very common in connection with phthisis, in bilious and typhoid fevers, in diarhœa and dysentery. It has been repeatedly noticed in cholera infantum.

In this disease softening is usually found to exist in the mucous lining of the stomach and colon.

The symptoms of softening of the alimentary tube, do not generally differ materially from those of other diseases of the same viscus. Usually there is more or less pain in the epigastrium, loss of appetite, nausea and vomiting, with gradual emaciation, the pains are made worse by pressure, and give a dull, haggard expression to the countenance.

An other variety of softenings of the alimentary canal, is

that which is produced by the action of the gastric juice; this form of softening differs from the inflammatory, inasmuch as it often extends through the several layers of the viscera, and exercises its disorganizing influence upon the adjoining organs. As before stated, this variety never exists excepting after death; and then, often, to an almost unlimited extent. Softening of the liver is said to be a common affection in warm climates, but of rare occurrence in more temperate regions.

The organ usually retains nearly its natural color, but its cohesive properties are very much changed, so much so that it can be broken down with little force. This lesion has been frequently noticed in persons who have died suddenly from cholera, dysentery, and malignant fevers.

Inflammatory softening may under different circumstances have its seat in the spleen, the pancreas, or the kidney. It is much oftener noticed in the former, than in either of

the other organs.

Mollities ossium, or softening of the bones, is a disease which is sometimes noticed. This disease is not of very frequent occurrence, and usually happens during adult life. It is said to be oftener found in females, than in males. In some cases it has affected all, or nearly all the bones in the skeleton, but more commonly, it is confined to particular bones, and those usually which are most liberally supplied with the spongy substance. It may affect the whole substance

of the bone, or it may be confined to the cancellated structure, leaving the surface of the bone in the form of a thin shell. The bones affected with this disease, are lighter than they are naturally, and so soft that they may be easily bent, or cut with a knife.

As to the causes of this disease, there is much obscurity; the usual absence of pain would seem to be a contra indication for inflammation. There is undoubtedly a deficiency of phosphate of lime,

the hardening material of the bones, and if this is the result of inflammatory irritation, it must be of the slow chronic grade.